

## **Executive Summary**

### **Introduction**

Traditional Neighborhood Developments (TNDs) are characterized by human-scale, walkable, and transit friendly communities with moderate to high densities and a mixed-use core. TNDs are becoming increasingly popular in the United States and North Carolina, and they are expected to encourage walking and bicycling and increase the percentage of trips performed inside the development, due to the mixture of land uses.

Over the past decade, a number of Traditional Neighborhood Developments were completed in the Triangle Area. Examples include Southern Village and Meadowmont in Chapel Hill, and Carpenter Village in Cary. As these types of neighborhoods become increasingly popular, a closer assessment of the traffic impacts of TND designs becomes warranted. Conceptually, TND design encourages walking by decreasing distances to shops and businesses and creating a pleasant and safe neighborhood environment. Even without an increase in walking, TND designs intend to capture vehicular trips within neighborhood boundaries by providing amenities in the village centers, as well as cause a mode shift towards public transportation, the implementation of which becomes more viable in a more denser development style.

However, the differences in traveler behavior and the resulting effects on traffic of these developments are yet to be determined and scientific analyses are required to assess whether proclaimed benefits of the design are indeed occurring. Current forecasting models and trip generation procedures need to be tested for their applicability to these new developments. This research report assesses the impacts of a TND neighborhood by comparing trip generation and traffic impact analysis results to actual traffic counts taken at the neighborhood boundaries and by investigating the results of resident and business surveys taken in the Southern Village (TND neighborhood) and Northern Carrboro developments (conventional neighborhoods) near Chapel Hill North, Carolina.

### **Project Scope and Objectives**

Traditional Neighborhood Developments (TNDs) are planned in a relatively high-density design and combine a mix of land uses within the boundaries of the development. Chapter 7 of the Institute of Transportation Engineers (ITE) Trip Generation Handbook defines Multi-Use Developments as “typically a single real-estate project that consists of two or more ITE land use classifications between which trips can be made without using the off-site road system.” Southern Village, a development south of Chapel Hill, NC was designed in the style of TNDs and fits the ITE definition of multi-use development because it contains houses, shops, restaurants, a grocery store, a movie theatre, offices, a day care center, and an elementary school within its boundaries.

For comparative purposes, a second residential area was chosen, which was not designed in the style of TNDs. The Northern Carrboro neighborhoods, also near Chapel Hill, NC, were selected because they were determined to best represent the opposite side of the spectrum in relation to Southern Village with respect to factors that might influence the number of trips people make